EGG WASHING MACHINE, INCLUDING TANKS THROUGH WHICH CLEANING FLUID IS CIRCULATED

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EGG WASHING MACHINE, INCLUDING TANKS THROUGH WHICH CLEANING FLUID IS CIRCULATED

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1 Claim. (Cl. 154--102)

This invention relates to an egg washing machine including tanks through which cleaning fluid is circulated, the primary object of the invention being to provide means whereby eggs may be freed of any foreign matter, cleaning the eggs prior to shipping the eggs to the trade.

An important object of the invention is to provide an apparatus of this character including inverted frusto-conical trays in which the eggs are positioned, the trays being constructed of heavy wire material so that an appreciable number of eggs may be contained therein for washing.

Another object of the invention is to so arrange the trays that water may be readily circulated through the trays, contacting with the eggs held therein, dislodging material therefrom as the water passes between the eggs from one container to another.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts, hereinafter more fully described and pointed out in the claims, if being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawing

Figure 1 is a side elevational view of an egg washing apparatus, constructed in accordance with the invention, a portion of the wall of the housing or casing of the washing apparatus having been broken away illustrating the position of the trays therein.

Fig. 2 is a plan view thereof.

Referring to the drawing in detail, the apparatus comprises a support in the form of a table which is supplied with legs, whereby the table is held in spaced relation with the surface on which the apparatus is positioned.

Mounted on the support or table is the housing indicated generally by the reference character 7, the housing providing a pair of tanks with the table 5, the tanks being open at their tops. The tanks are substantially inverted cone shaped and separated by means of the partition 9, the partition terminating in spaced relation with the top of the tanks, as clearly shown by Fig. 1 of the drawing.

The partition is also formed with an inclined outer surface conforming to the general curvature of the tanks, so that the partition forms continuations of the walls of the tanks.

secured to the lower surface of the table 5, is the pump housing 10 in which a pump not shown operates, the pump being provided with a shaft on which the pulley 11 is secured, the pulley receiving its motion from a power device not shown, through the belt 12.

The reference character 13 indicates a pipe which communicates with the tank at one side of the housing, and also communicates with the pump housing 10. The pipe 14 establishes communication between the pump housing 10 and opposite tank, as shown.

In order to promote the cleaning operation, an air pipe 15 is provided, the air pipe extending from the top of the housing, throughout the length of the housing, where it passes through the table 5 and extends laterally as at 16 where it connects with the pipe 13. It is obvious that as the pump operates, and the water is caused to circulate as indicated by the arrows in Fig. 1, air will be sucked into the water line, through the pipe 15, agitating the clean water.

Forming an important part of the washer, are the frusto-conical trays 17, which trays are of such a construction that when they are inverted and positioned within the tanks, a binding action will be set up between the trays and walls of the tanks, holding the trays in position within the tanks. The trays are of such length that when they have been properly positioned, water circulating spaces 18 are provided between the lower ends of the trays and bottoms of the tanks. The upper edges of the trays are in a direct horizontal line, so that water in passing through the trays during the circulation of the water, may pass through one tray and overflow the partition, and be drawn downwardly through the tray at the other side, where the water continues circulation to free foreign matter from the eggs.

When using the egg washer, the tanks are supplied with water to a level slightly above the trays, the water having a temperature of 115 degrees Fahrenheit.

It might be further stated that for best results, a water containing two per cent lye is used within the tanks, and it has been found desirable to permit the water containing the lye to dry on the eggs for preservative qualities. It is also preferable to collect the eggs in the trays or baskets, so that they may be readily transferred to the washing apparatus without unnecessary handling of the eggs which has been found to be detrimental to the quality of the eggs and to impair the preservative qualities of the solution used in washing the eggs.

In view of the foregoing, it is believed that a further description as to the use and operation of the apparatus is unnecessary.
Having thus described the invention, what is claimed is:

In an egg washing apparatus, a table, a housing mounted on the table forming a tank with said table, a vertical partition within the housing dividing the housing into a pair of inverted frusto-conical communicating tanks, inverted frusto-conical wire trays adapted to contain eggs, positioned in the tanks, the bottoms of said trays being spaced substantial distances above the bottoms of the tanks providing water circulating spaces with the bottoms of their respective tanks, a water circulating pipe secured to the table with its ends extended into said tanks, a circulating pump mounted in the water circulating pipe intermediate the ends thereof adapted to circulate water upwardly through one tank, over the partition and downwardly through the adjacent tank, and an air pipe extending into the water circulating pipe with one of its ends communicating with the atmosphere, whereby water circulating through said water circulating pipe draws air into the water circulating pipe circulating the air with the water through said tanks and trays.

JOHN A. LANGLAND.

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